Sentinel Asia's Emergency Observation Mechanism and effective EOR

* updated as of Dec 2018

7th Joint Project Team Meeting for Sentinel Asia STEP3 (JPTM2019) ,

Marriott Hotel, Bangkok, Thailand

12-14, November 2019

Makoto IKEDA

Asian Disaster Reduction Center (ADRC)

Sentinel Asia and its Contributions

- Sentinel Asia is a voluntary initiative between **space agencies** and **disaster management agencies** to apply **Remote Sensing** and **Web-GIS** technologies to assist disaster management in the Asia-Pacific region.

- Sentinel Asia aims to:
  - ✓ Improve safety in society by ICT and space technology
  - ✓ Improve speed and accuracy of disaster preparedness and early warning
  - ✓ Minimize the number of victims and social/economic losses.

Members of Sentinel Asia

- *Sentinel Asia organizes Joint Project Team (JPT), and JPT consists of **107 organizations** including **91 agencies from 28 countries/region** and **16 international organizations**. (as of December 2018)*

- *JAXA is the secretariat of JPT.*

- *Also, Sentinel Asia cooperates with **ADRC** and **their members** closely, and they are also member of Sentinel Asia as well.*

JPT +

m e m b e r s

Member Countries

Russian Federation
Azerbaijan
Tajikistan
Mongolia
Uzbekistan
Kazakhstan
Armenia
Kyrgyz Republic
Korea, Republic Of
Turkey
Pakistan
Bhutan
China
Japan
Nepal
Iran
Myanmar
Viet Nam
Lao People's Democratic Republic
India
Philippines
Yemen
Cambodia
Bangladesh
Thailand
Maldives
Malaysia
Sri Lanka
Singapore
Indonesia
Papua New Guinea

Advisor Countries

Australia   Switzerland   New Zealand   France   U.S.A

Framework of Sentinel Asia

Space Community

Disaster Reduction Community

SENTINEL ASIA

91 organizations from 28 countries & regions and 16 international organizations
In total: 107 organizations

- APRSAF
- Satellite Image
- Promotion of Utilization
- Capacity Building

- ADRC Member Countries (30 member countries)
- Disaster Information
- Utilization (User)

Joint Project Team (JPT)

International Community

UNESCAP, UNOOSA
ASEAN, AIT and
International Disaster Charter
etc.

International Cooperation

Sentinel Asia Constellation contributing to Emergency Observation

ISRO IRS

GISTDA THEOS

JAXA ALOS-2

NARL FORMOSAT-3

Sentinel Asia Constellation

KARI KOMPSAT-1

CRISP X-SAT

MBRSC Dubai-SAT 2

VAST VNREDSAT-1
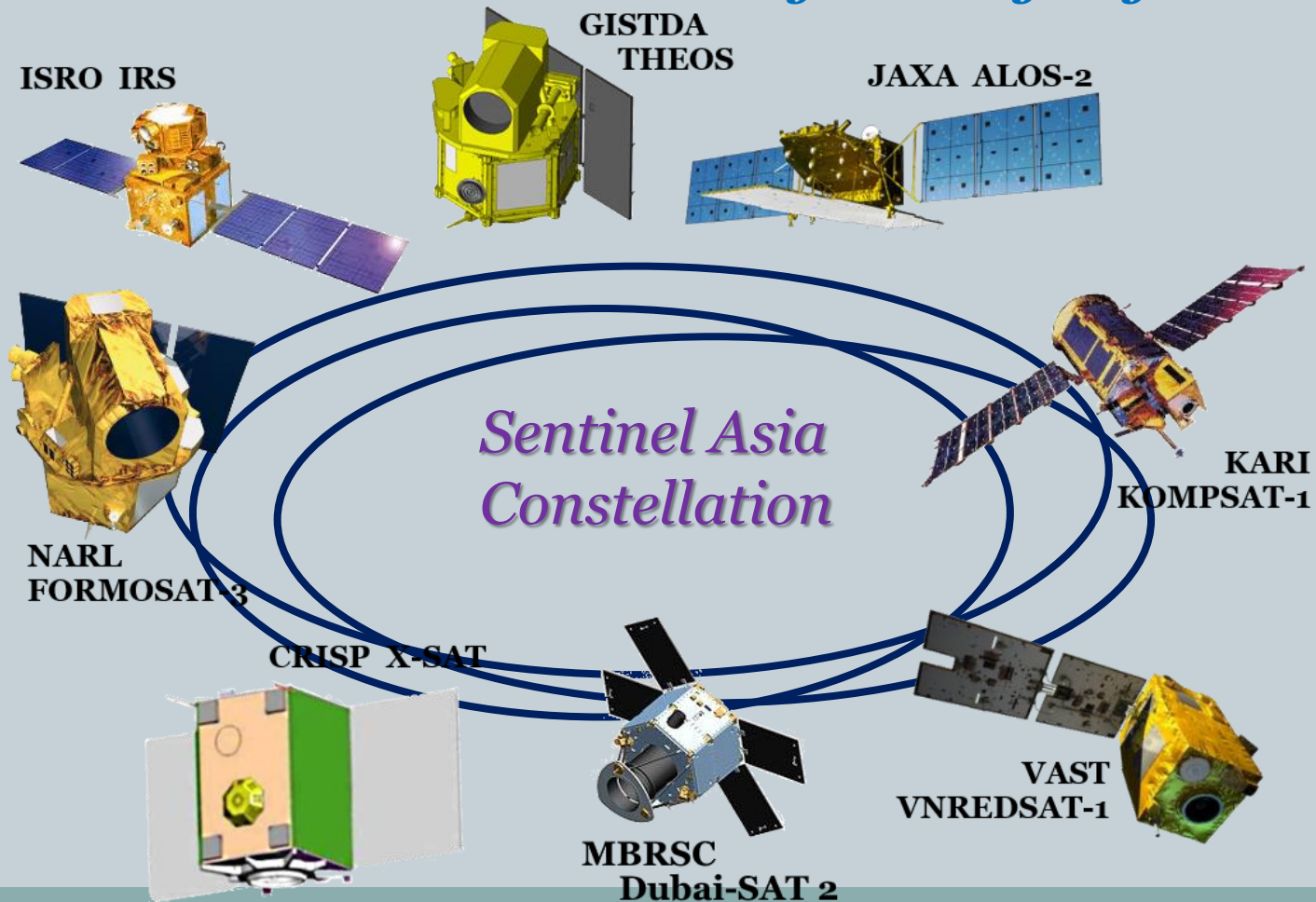
Concept of Sentinel Asia Step 3
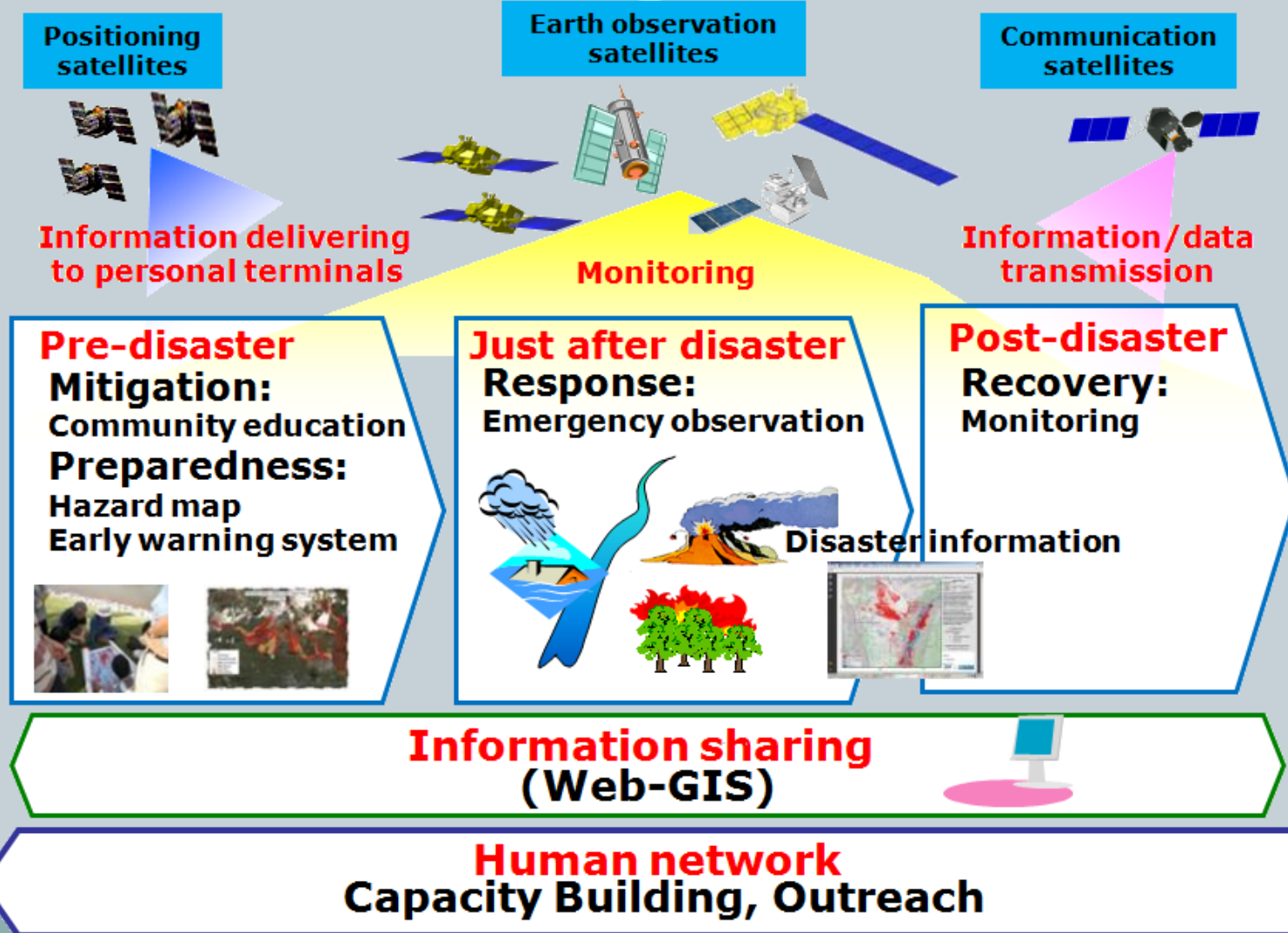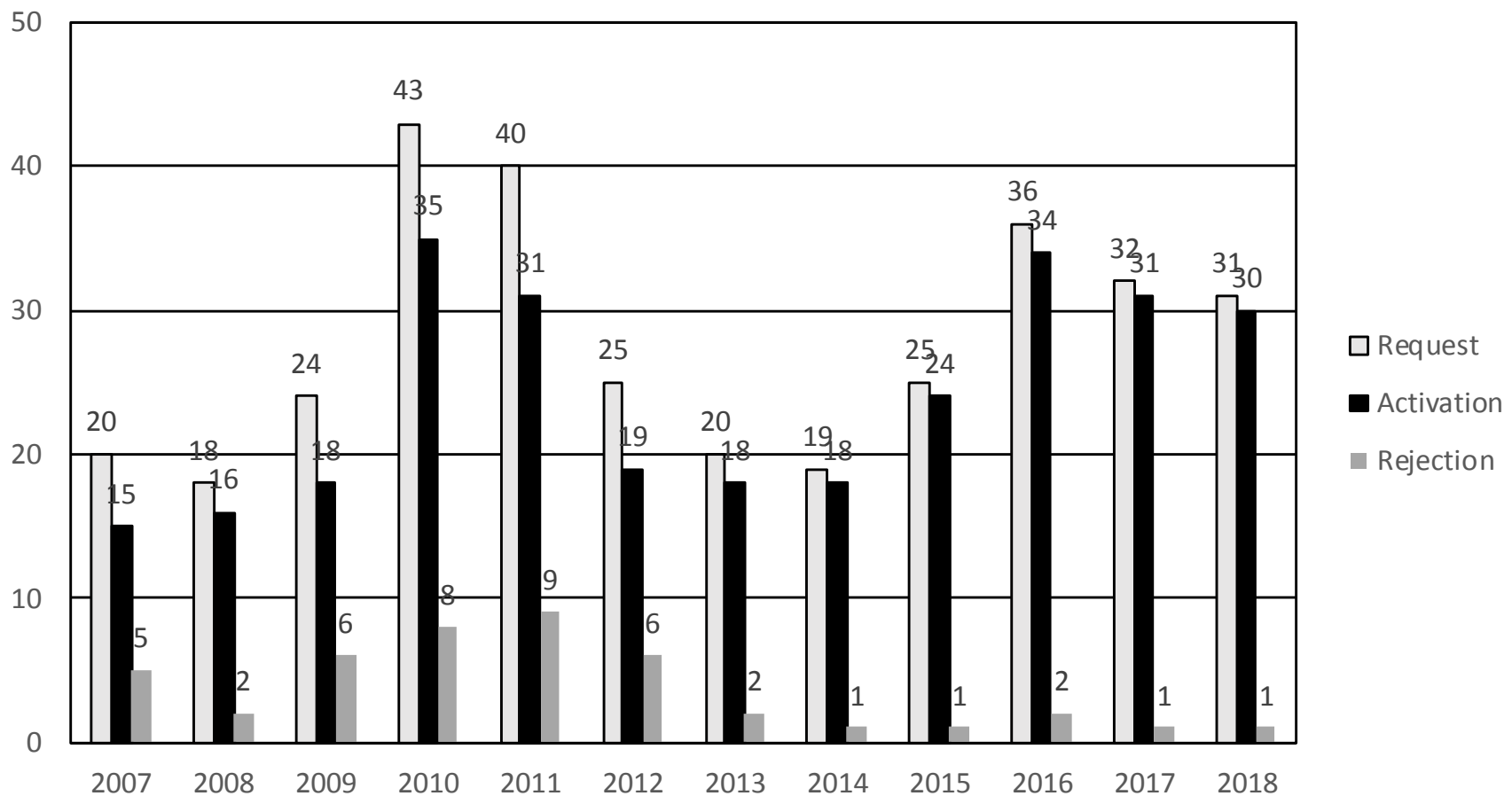
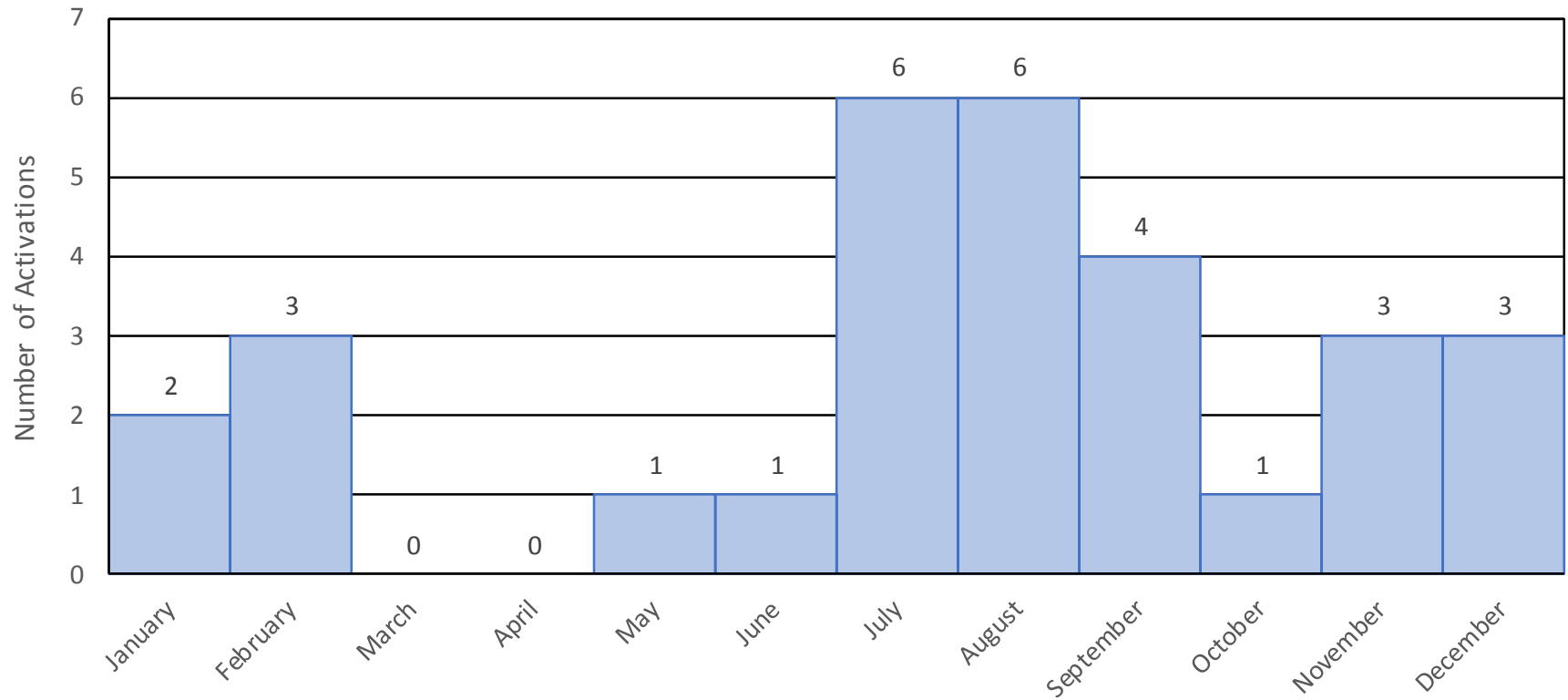# Emergency Observation Request
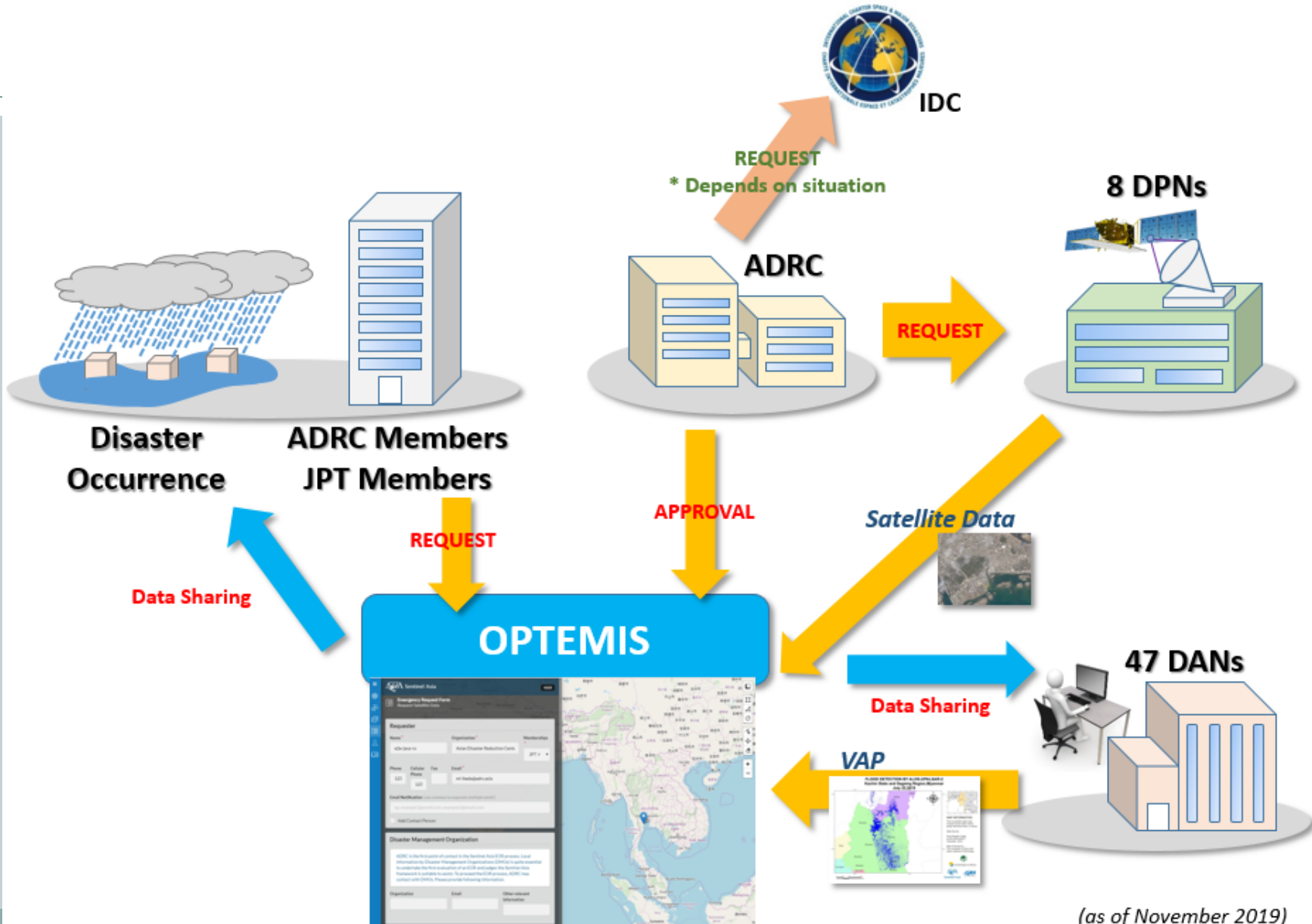
(as of November 2019)
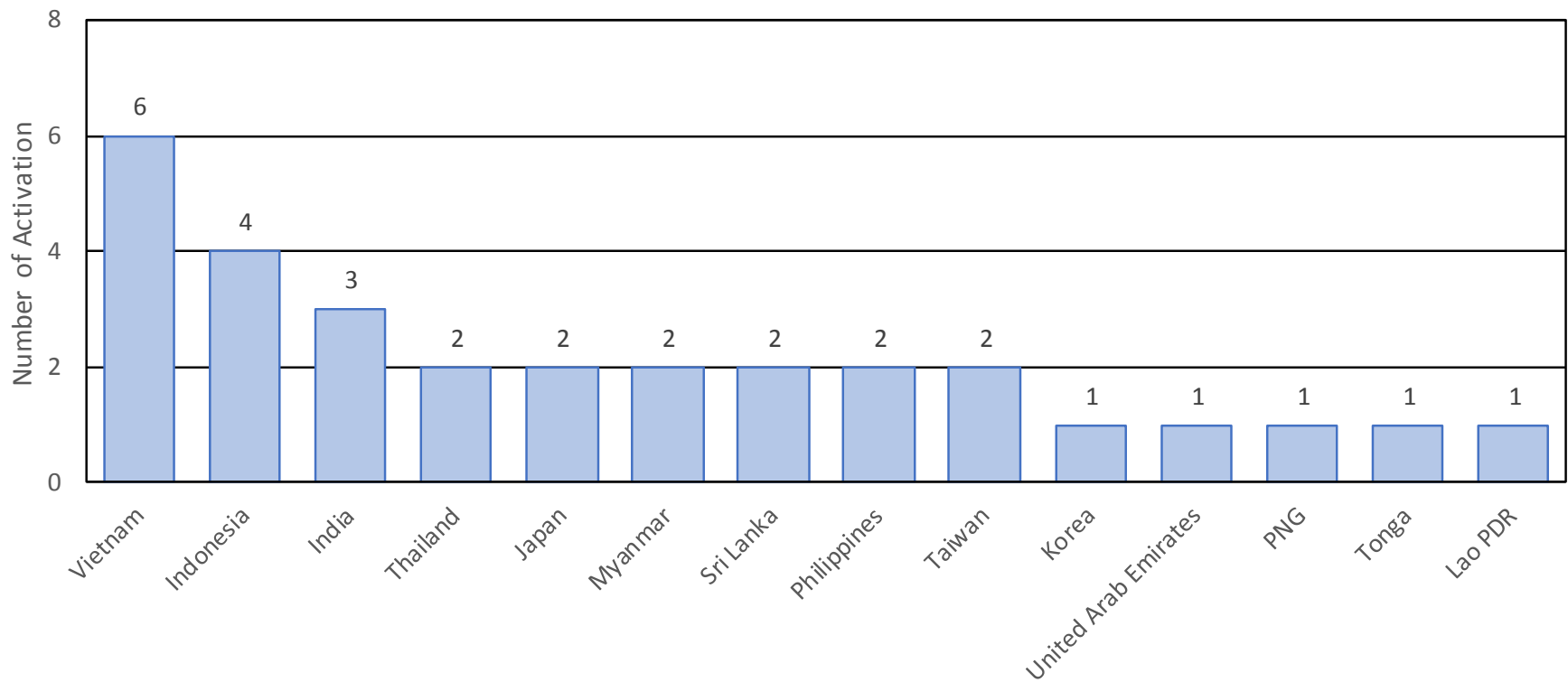
Number of EOR (2007-2018) *as of December 2018

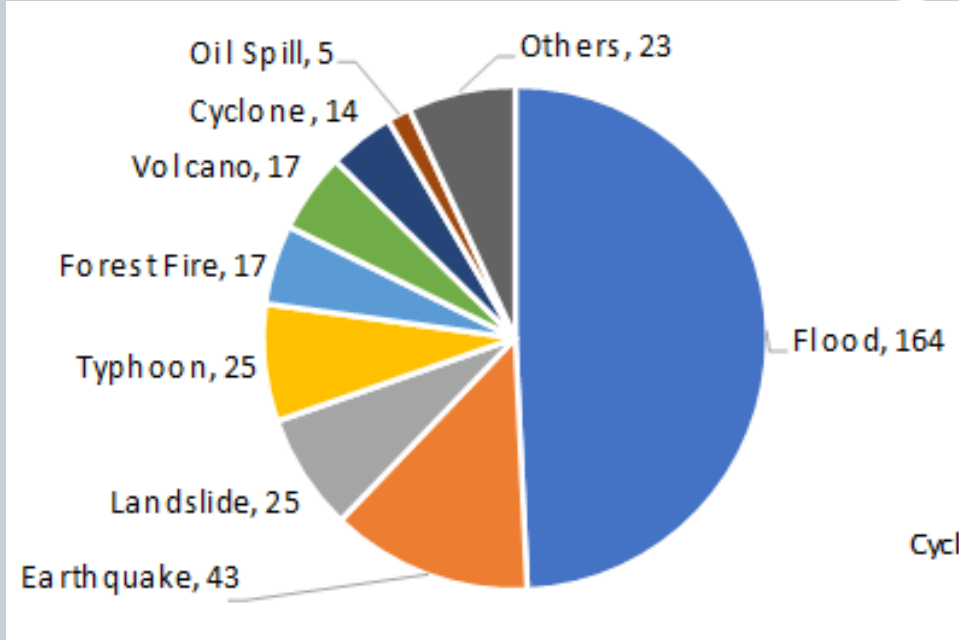Sentinel Asia accepted 333 requests, 289 were activated.
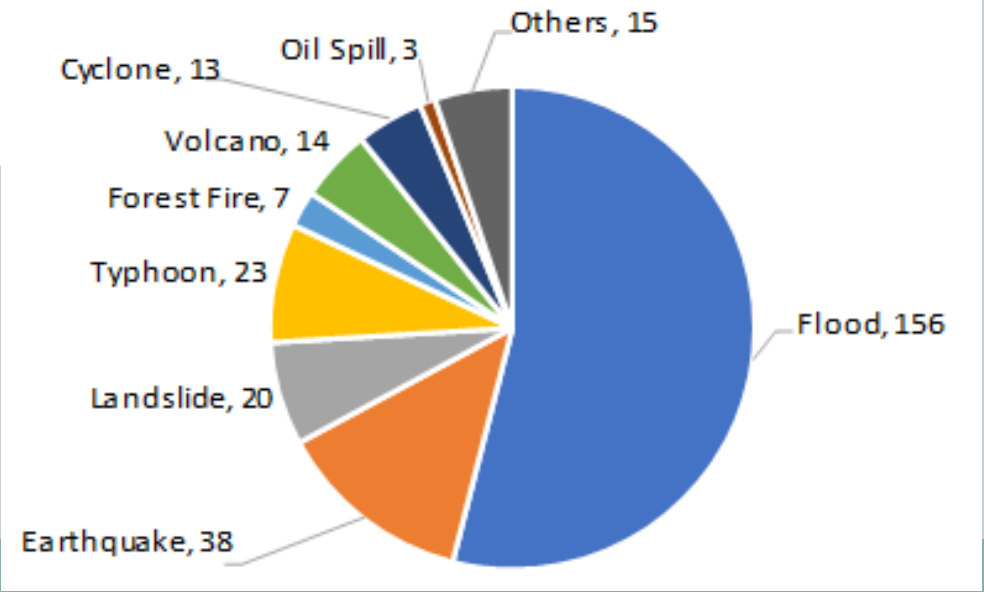
Number of monthly activations in 2018
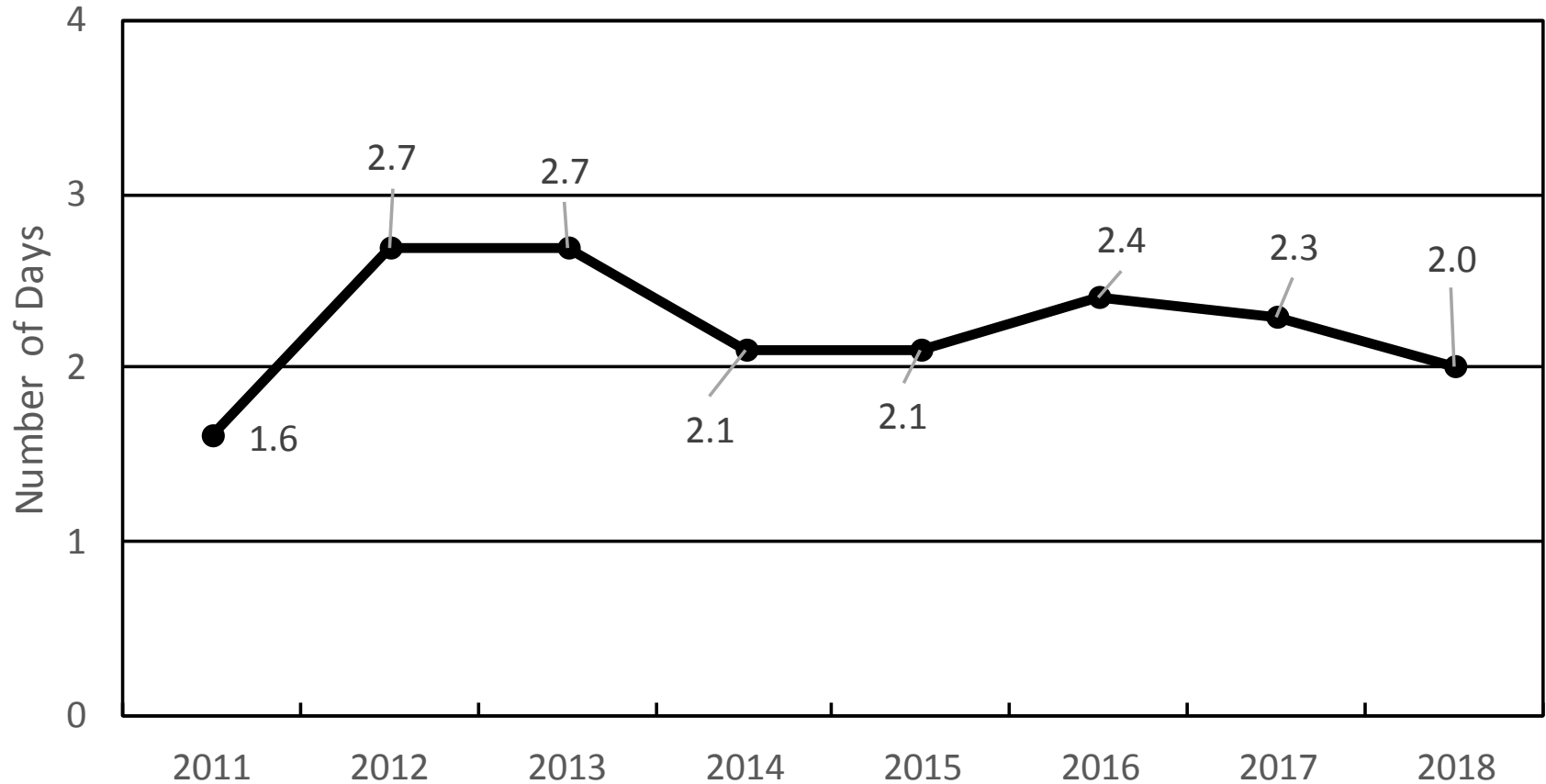
Number of activations by country in 2018

Type of Disaster (2007-2018) *as of December 2018

Request

Oil Spill, 5
Cyclone, 14
Volcano, 17
Forest Fire, 17
Typhoon, 25
Landslide, 25
Earthquake, 43
Others, 23
Flood, 164

Activate

Cyclone, 13
Oil Spill, 3
Others, 15
Volcano, 14
Forest Fire, 7
Typhoon, 23
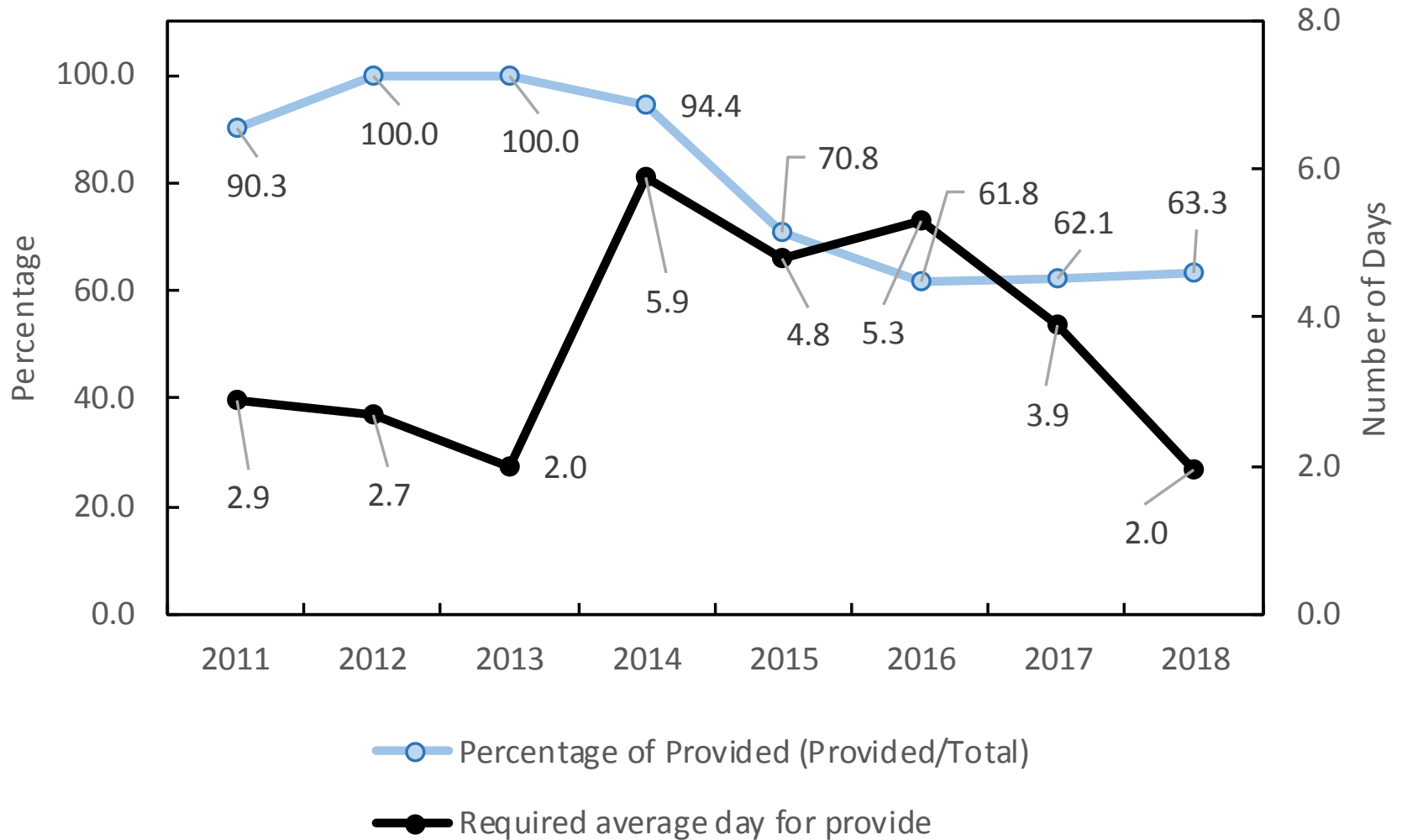Landslide, 20
Earthquake, 38
Flood, 156
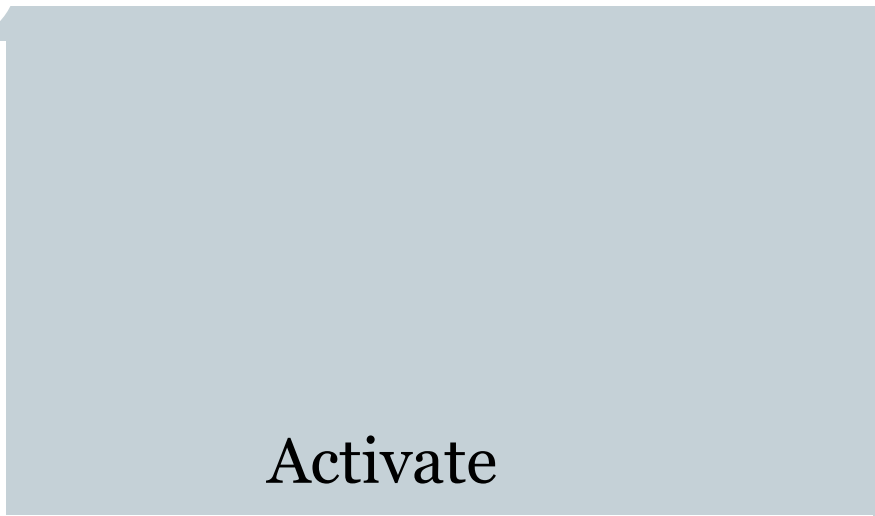
Number of Days Required from Disaster Occurrence to Request (2011-2018)
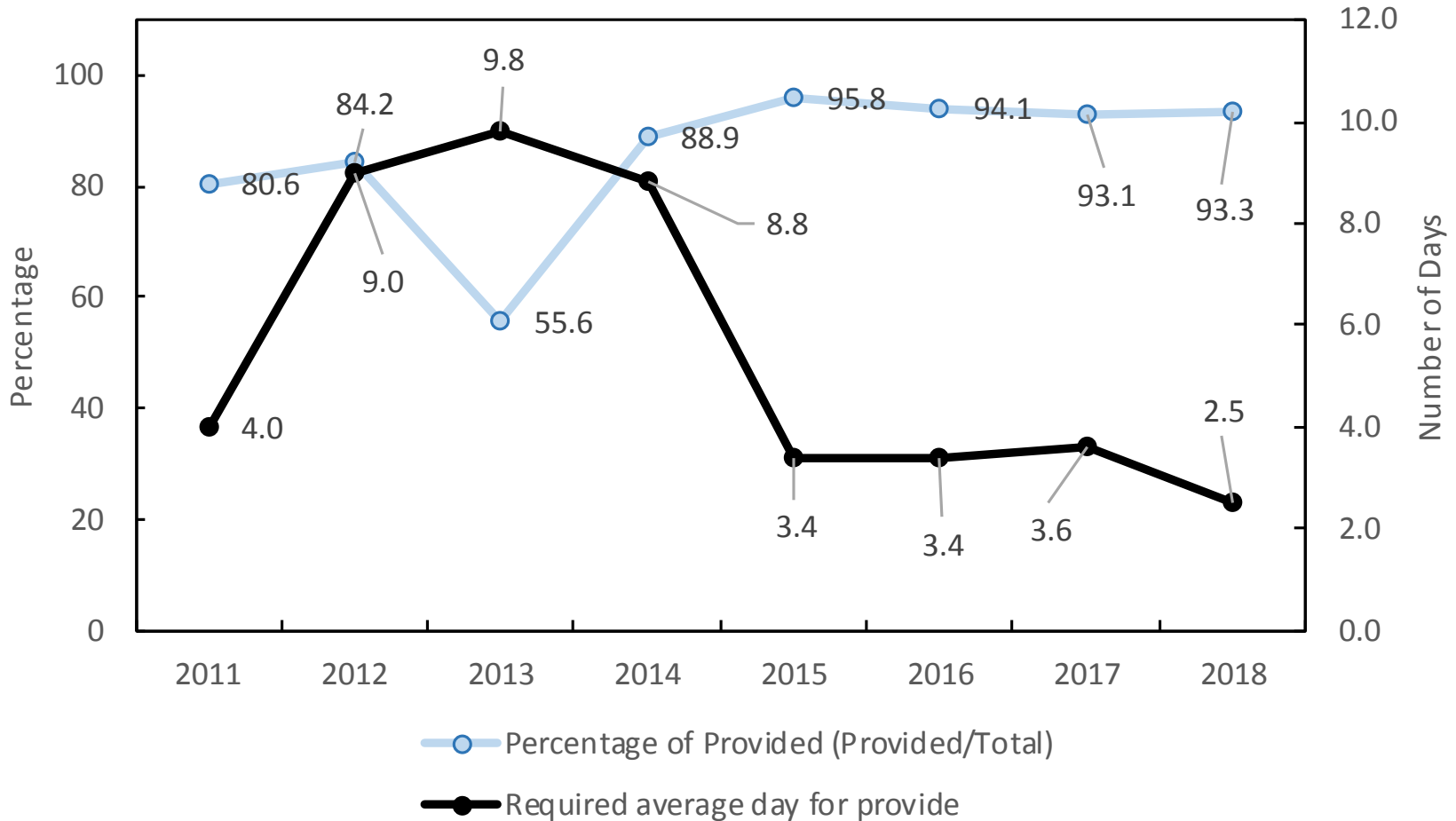
# Number of Days Required from Request to Activation (2011-2018)

Average Number of Days Required to Provide Archive Satellite Data and Response Rate for Each Year (2011-2018)

Average Number of Days Required to Provide Satellite Data After Disaster and Activation Rate for Each Year (2011-2018)

Average Number of Days Required to Provide Products and Activation Rate for Each Year (2011-2018)
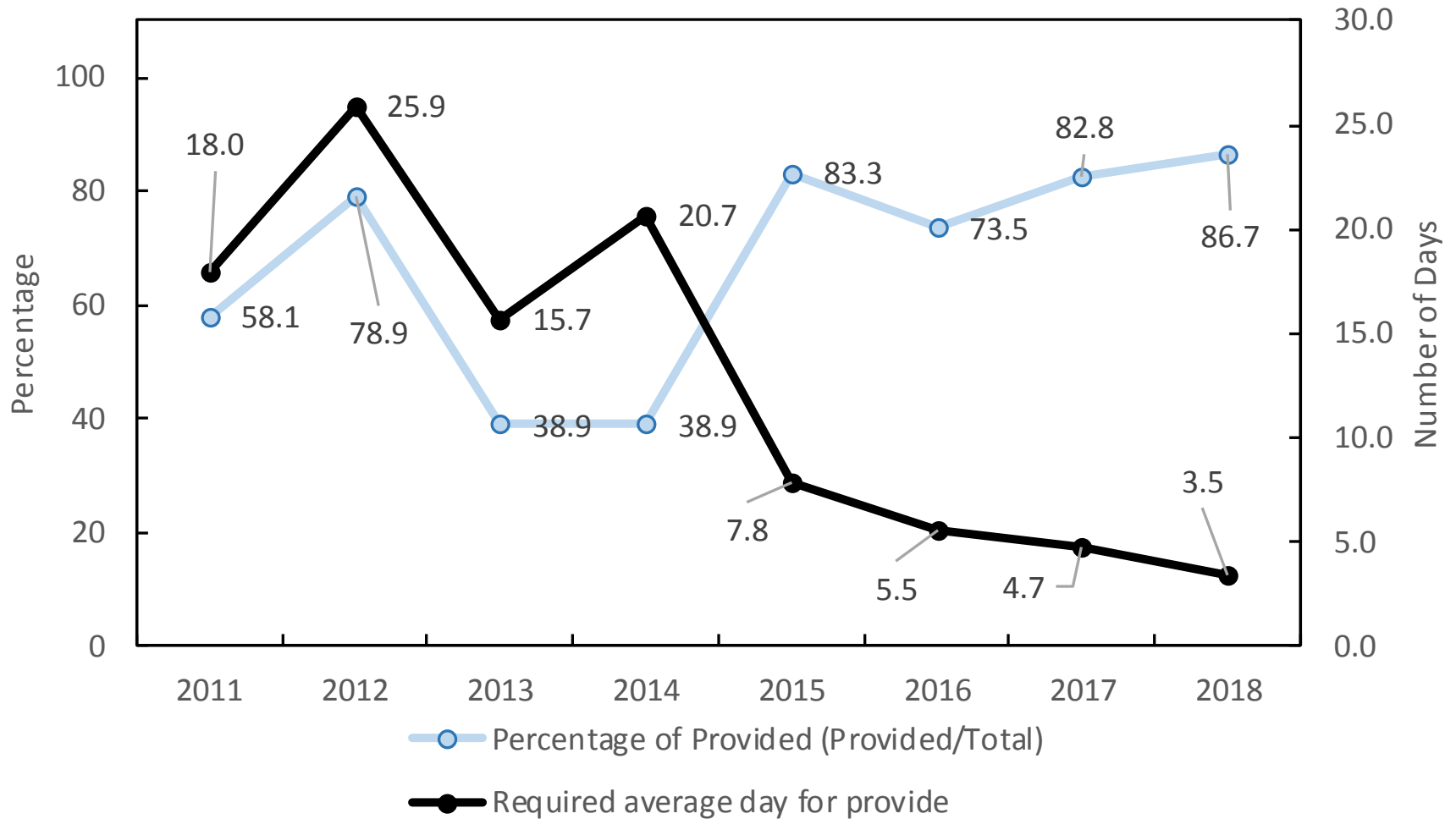
ADRC promotes disaster risk reduction through multi-national/multi-stakeholder/multi-lateral cooperation in the Asian region.

http://www.adrc.asia

Thank you very much